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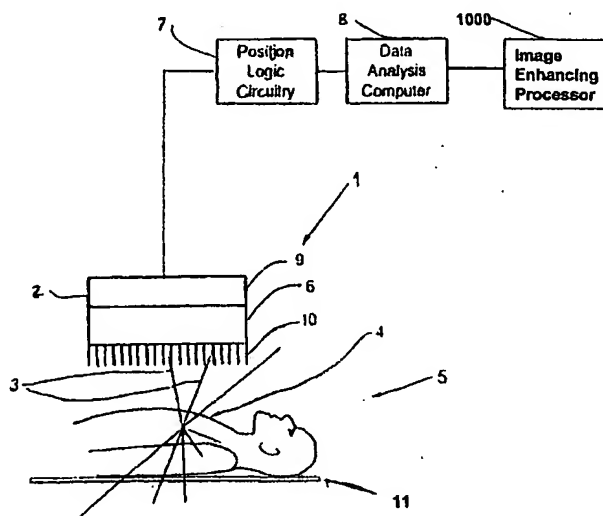
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(54) Title: **ENHANCED PLANAR SINGLE PHOTON EMISSION IMAGING**



(57) Abstract: A method of obtaining a planar image of a portion of a body and enhancing image quality of at least one specific organ or volume of interest located within the portion of the body, administered with radio-pharmaceutical substance radiating gamma rays, by using single photon emission imaging, for determination of functional information thereon. The method comprises the steps of: (a) acquiring at least one projection data of said portion of the body, by means of a gamma camera detector; (b) determining the effective distance between the detector and the specific organ of interest; (c) calculating weight values taking into account acceptance angles of the gamma camera detector and the effective distance; (d) obtaining a two dimensional image of a spatial distribution of the pharmaceutical substance within the portion of the body by mathematically analyzing said data in conjunction with weight values.

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